

What is claimed is:

1. A method for producing koji comprising culturing soybean hypocotyl inoculated with a microorganism.
- 5 2. The method of claim 1, wherein the microorganism is *Bacillus* sp., *Aspergillus* sp. or a mixture thereof used in an amount of 0.01 to 10 wt% based on the weight of the soybean hypocotyl.
- 10 3. The method of claim 1, which comprises:
 - (a) soaking the soybean hypocotyl in water for a period ranging from 1 min to 30 hrs;
 - (b) steaming the soaked soybean hypocotyl at a temperature ranging from 90 to 140°C;
 - 15 (c) inoculating the steamed soybean hypocotyl with *Bacillus* sp., *Aspergillus* sp. or a mixture thereof in an amount ranging from 0.01 to 10 wt% based on the weight of the soybean hypocotyl; and
 - (d) culturing the inoculated soybean hypocotyl at a temperature ranging from 15 to 55°C, a relative humidity ranging from 40 to 100% and at a pH ranging
 - 20 from 3 to 10 for a period ranging from 1 to 8 days.
4. The method of claim 3, wherein step (a) is carried out for 1 to 30 min.
5. The method of claim 3, wherein step (d) is carried out at 25 to 35°C
- 25 6. The method of claim 3, wherein step (d) is carried out in 2 steps of pre-culturing and culturing, and each of the pre-culturing and culturing step is carried out for 12 to 72 hrs.
- 30 7. The method of claim 2, wherein the *Bacillus* sp. is selected from the group consisting of *Bacillus brevis*, *Bacillus licheniformis*, *Bacillus natto*, *Bacillus polymixa*, *Bacillus pumilis*, *Bacillus subtilis* and a mixture thereof; and the *Aspergillus* sp. is selected from the group consisting of *Aspergillus awamori*, *Aspergillus kawachii*, *Aspergillus niger*, *Aspergillus oryzae*,
- 35 *Aspergillus shirousamii*, *Aspergillus sojae*, *Aspergillus tamarai* and a mixture thereof.

8. The soybean hypocotyl koji produced by any of the methods of claims 1 to 7.

9. The soybean hypocotyl koji of claim 8, which contains soybean
5 hypocotyl in an amount of 5 to 100 wt% based on the weight of the koji.

10. A method for producing a fermented soy hypocotyl product, which comprises using the soybean hypocotyl koji of claim 8 as a raw material.

10 11. The method of claim 10, wherein the fermented soy hypocotyl product contains the soybean hypocotyl koji in an amount of 5 to 97 wt% based on the weight of the soy hypocotyl product.

12. The method of claim 10, wherein the cultivation is carried out in the
15 presence of added yeast, lactic acid bacteria or a mixture thereof, the amount of the additive being 0.01 to 10 wt% based on the total weight of the product.

13. The method of claim 12, wherein the yeast is selected from the group consisting of *Saccharomyces rouxii*, *Torulopsis dattila*, *Torulopsis etcbellsii*,
20 *Torulopsis versatilis* and *Zygosaccharomyces rouxii*, and the lactic acid bacteria is selected from the group consisting of *Pediococcus halphilus*, *Pediococcus sojae* and *Tetracoccus sojae*.

14. The method of claim 10, wherein starch koji is added as a
25 supplementary koji substrate.

15. The method of claim 14, wherein the soybean hypocotyl koji and the starch koji are used in the respective amounts of 5 to 97 wt% and 1 to 95 wt% based on the total weight of the soybean paste.

30 16. The fermented soy hypocotyl product prepared by any of the methods of claims 10 to 15.

17. The fermented soy product of claim 16, which is a soybean paste, a
35 pepper soypaste or a soy sauce.

18. The food product of claim 16, comprising isoflavone in an amount of

'21

0.1 to 3 wt%.